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Briquetting of Metal Chips by Controlled Impact: Experimental Study

Authors : Todor Penchev, Dimitar Karastojanov, Ivan Altaparmakov

Abstract : For briquetting of metal chips are used hydraulic and mechanical presses. The density of the briquettes in this case is about 60% - 70 % on the density of solid metal. In this work are presented the results of experimental studies for briquetting of metal chips, by using a new technology for impact briquetting. The used chips are by Armco iron, steel, cast iron, copper, aluminum and brass. It has been found that: (i) in a controlled impact the density of the briquettes can be increases up to 30%; (ii) at the same specific impact energy Es (J/sm3) the density of the briquettes increases with increasing of the impact velocity; (iii), realization of the repeated impact leads to decrease of chips density, which can be explained by distribution of elastic waves in the briquette.

Keywords : briquetting, chips briquetting, impact briquetting, controlled impact
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